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DALLAS OFFICE OF FULBRIGHT & JAWORSKI L.L.P.			ELAHEE, MD S	
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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)				
•	09/689,481	POLCYN, MICHAEL J.				
Office Action Summary	Examiner	Art Unit				
	Md S Elahee	2645				
The MAILING DATE of this communication ap Period for Reply	pears on the cover sheet with the c	correspondence address				
A SHORTENED STATUTORY PERIOD FOR REPL THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1. after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a rep - If NO period for reply is specified above, the maximum statutory period - Failure to reply within the set or extended period for reply will, by statut Any reply received by the Office later than three months after the mailir earned patent term adjustment. See 37 CFR 1.704(b).	136(a). In no event, however, may a reply be tirely within the statutory minimum of thirty (30) day will apply and will expire SIX (6) MONTHS from e, cause the application to become ABANDONE	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed on						
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closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.						
Disposition of Claims						
4) ☐ Claim(s) 1-31,33,35-67 and 72-85 is/are pend 4a) Of the above claim(s) is/are withdra 5) ☐ Claim(s) is/are allowed.  6) ☐ Claim(s) 1-31,33,35-67 and 72-85 is/are rejection is/are objected to.  8) ☐ Claim(s) is/are object to restriction and/or are subject to restriction and/or are subject.	awn from consideration.					
Application Papers						
9) ☐ The specification is objected to by the Examin	er.					
10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.						
Applicant may not request that any objection to the	•	` '				
Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the E	• • • • • • • • • • • • • • • • • • • •	•				
Priority under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:  1. Certified copies of the priority documen 2. Certified copies of the priority documen 3. Copies of the certified copies of the priority application from the International Burea * See the attached detailed Office action for a list	its have been received. Its have been received in Applicatority documents have been received in Applicatority documents have been received in the control of	ion No ed in this National Stage				
Attachment(s)						
1) Notice of References Cited (PTO-892)	4) Interview Summary	(PTO-413)				
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail D					
<ol> <li>Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08 Paper No(s)/Mail Date</li> </ol>	6) Other:	atom Approacion (1.10-102)				

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#### DETAILED ACTION

# Response to Amendment

1. This action is responsive to an amendment filed on 12/23/03. Claims 1-31, 33, 35-67 and 72-85 are pending. Claims 32, 34 and 68-71 have been cancelled.

# Response to Arguments

2. Applicant's arguments with respect to claims 1-31, 33, 35-67 and 72-85 have been fully considered but they are not persuasive.

Regarding claim 1, the Applicant argues on page 15, lines 1-5 that Crockett fails to teach "quantifying at least one attribute desired by said at least one request". The examiner disagrees with this argument. Because, Crockett does teaches quantifying at least one skill (i.e., attribute) desired by the at least one request (col.4, lines 54-67, col.5, lines 1-29). Furthermore, the Applicant also argues on page 15, lines 24, 25 that 'quantification of attribute(s) of resources desired by a request, beyond mere binary quantification, is not taught by Crockett'. The examiner disagrees with this argument. Because, the applicant is silent about the phrase 'beyond mere binary quantification' in the claimed limitation of claim 1. Thus the rejection of the claim in view of Crockett remain.

Regarding claim 19, the Applicant argues on page 21, lines 13, 14 that Crockett fails to teach the added limitation "grading said at least one attribute of each of said resources along a scale". The examiner disagrees with this argument. Because, Crockett does teach "primary" or "secondary" skills or degree of skills (i.e., grading the at least one attribute of each of the resources along a scale) (col.5, lines 10-15). Thus the rejection of the claim in view of Crockett remain.

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Regarding claim 36, the Applicant argues on page 19, lines 17-21 that Crockett fails to teach the added limitation "said means for determining computes a difference between the quantified at least one attribute of said resources and the quantified at least one attribute desired by said at least one request to identify at least one of said resources that is suitable for servicing said at least one request". The examiner disagrees with this argument. Because, Crockett does teach the means for determining computes a difference between the particular skill group (i.e., quantified at least one attribute) of the agents (i.e., resources) and the particular skill group (i.e., quantified at least one attribute) desired by the at least one call type (i.e., request) to identify at least one of the agents (i.e., resources) that is suitable for servicing the at least one request (fig.1, fig.2; col.5, lines 10-28, 35-38, 46-51, col.8, lines 17-37, 65-67, col.9, lines 1-13). Thus the rejection of the claim in view of Crockett remain.

Regarding claim 60, the Applicant argues on page 26, lines 16-25 that Crockett fails to teach the added limitation "said code executable to quantify at least one attribute of said resources further includes code executable to quantify "N" number of attributes of said resources and code executable to plot said quantified "N" number of attributes within an N-dimensional space". The examiner disagrees with this argument. Because, Crockett does teach the code executable to quantify at least one attribute of the resources further includes code executable to organize two groups (i.e., quantify "N" number) of skills of agents (i.e., attributes of the resources) and code executable to plot the organized two groups (i.e., quantified "N" number) of skills (i.e., attributes) within an two-dimensional arrays (i.e., N-dimensional space) (fig.1, fig.2; col.5, lines 10-28, 35-38, 46-51, col.8,

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lines 17-37, 65-67, col.9, lines 1-13, col.10, lines 37-44). Thus the rejection of the claim in view of Crockett remain.

Regarding claim 60, the Applicant further argues on page 26, line 33-page 27, line 3 that Crockett fails to teach the added limitation "said code executable to determine at least one suitable resource includes code executable to calculate the distance between said quantified "N" number of attributes of said resources and said quantified at least one attribute desired by said at least one request to determine at least one suitable resource for servicing said at least one request". The examiner disagrees with this argument. Because, Crockett does teach the code executable to determine at least one suitable resource includes code executable to calculate the distance between the organized two groups of skills (i.e., quantified "N" number of attributes) of the agents (i.e., resources) and the particular skill group (i.e., quantified at least one attribute) desired by the at least one call type (i.e., request) to determine at least one suitable agents (i.e., resource) for servicing the at least one request (fig.1, fig.2; col.5, lines 10-28, 35-38, 46-51, col.8, lines 17-37, 65-67, col.9, lines 1-13). Thus the rejection of the claim in view of Crockett remain.

Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Therefore the examiner has given the claim language its broadest reasonable interpretation.

## Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-15, 17, 19-32, 34, 36-40, 42-56, 58, 60, 62-67, 72-76, 78 and 80-85 are rejected under 35 U.S.C. 102(b) as being anticipated by Crockett et al. (U.S. Patent No. 6,044,355).

Regarding claim 1, Crockett teaches providing a finite number of agents for incoming calls (abstract; col.4, lines 54-67; 'agents' reads on the claim 'resources' and 'incoming calls' reads on the claim 'servicing requests').

Crockett further teaches quantifying at least one skill of the agents (abstract; col.4, lines 54-67; 'skill' reads on the claim 'attribute' and 'agents' reads on the claim 'resources').

Crockett further teaches receiving at least one request for at least one of the agents (abstract; col.4, lines 54-67; 'agents' reads on the claim 'resources').

Crockett further teaches quantifying at least one skill desired by the at least one request (col.4, lines 54-67, col.5, lines 1-29; 'skill' reads on the claim 'attribute').

Crockett further teaches based at least in part on the quantifying steps, determining at least one suitable agent for servicing the at least one request (col.4, lines 54-67, col.5, lines 1-29; 'agent' reads on the claim 'resource').

Regarding claims 2, 20, 44 and 64, Crockett teaches that the resources include agents within a telephony call center (col.4, lines 54-67, col.5, lines 1-29).

Regarding claims 3, 21, 45 and 65, Crockett teaches that the at least one request includes a request from a caller to a telephony center (col.5, lines 5-29).

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Regarding claims 4, 22, 46 and 66, Crockett teaches that the agents include resources within a computer system (fig.1; col.4, lines 54-67, col.5, lines 1-29, 35-38; 'agents' reads on the claim 'resources').

Regarding claims 5, 23, 47 and 67, Crockett teaches that the agents include resources selected from the group consisting of skills (fig.1, fig.2; col.4, lines 54-67, col.5, lines 1-29; 'agents' reads on the claim 'resources' and 'skills' reads on the claim 'data input resources, data output resources, data storage resources, and data processing resources').

Regarding claims 6 and 24, Crockett teaches quantifying two or more skills of the agents (col.4, lines 54-67, col.5, lines 1-29; 'skills' reads on the claim 'attributes' and 'agents' reads on the claim 'resources').

Regarding claims 7, 25 and 48, Crockett teaches quantifying "N" number of skills of the agents (col.5, lines 5-29; 'skills' reads on the claim 'attributes' and 'agents' reads on the claim 'resources').

Regarding claims 8, 26 and 49, Crockett teaches plotting the quantified "N" number of attributes within an N-dimensional space (fig.1, fig.2; col.5, lines 10-28, 35-38, 46-51, col.8, lines 17-37, 65-67, col.9, lines 1-13, col.10, lines 37-44).

Regarding claims 9, 27 and 50, Crockett teaches plotting the quantified at least one attribute desired by the at least one request within the N-dimensional space (fig.1, fig.2; col.5, lines 10-28, 35-38, 46-51, col.8, lines 17-37, 65-67, col.9, lines 1-13, col.10, lines 37-44).

Regarding claims 10, Crockett teaches calculating the distance between the quantified "N" number of attributes of the resources and the quantified at least one

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attribute desired by the at least one request to determine at least one suitable resource for servicing the at least one request (fig.1, fig.2; col.5, lines 10-28, 35-38, 46-51, col.8, lines 17-37, 65-67, col.9, lines 1-13).

Regarding claims 11, 29, 52 and 72, Crockett teaches determining the at least one suitable agent from agents then available to immediately service the at least one request (col.4, lines 54-67, col.5, lines 1-29; 'agent' reads on the claim 'resource').

Regarding claims 12, 30, 53 and 73, Crockett teaches determining the at least one suitable agent from all of the agents (col.4, lines 54-67, col.5, lines 1-29; 'agent' reads on the claim 'resource').

Regarding claims 13, 31, 54 and 74, Crockett teaches that the at least one attribute includes at least one skill possessed by the agents (col.5, lines 5-29; 'agents' reads on the claim 'resources').

Regarding claims 14, 55 and 75, Crockett teaches that the at least one attribute includes at least one functional capability possessed by the agents (col.5, lines 5-29; 'agents' reads on the claim 'resources').

Regarding claims 15, 17, 32, 34, 56, 58, 76 and 78, Crockett teaches "primary" or "secondary" skills or degree of skills (i.e., grading the at least one attribute of each of the resources along a scale) (col.5, lines 10-15).

Regarding claim 19, Crockett teaches quantifying at least one functional skill of the agents, wherein the quantifying the at least one functional skill of the agents including "primary" or "secondary" skills or degree of skills (i.e., grading the at least one attribute of each of the resources along a scale) (abstract; col.4, lines 54-67, col.5, lines 10-15; 'skill' reads on the claim 'attribute' and 'agents' reads on the claim 'resources').

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Crockett further teaches receiving at least one request for the at least one functional skill (abstract; col.4, lines 54-67; 'skill' reads on the claim 'attribute').

Crockett further teaches quantifying the at least one functional skill desired by the at least one request wherein the quantifying the at least one functional skill desired by the at least one request including "primary" or "secondary" skills or degree of skills (i.e., grading the at least one attribute of each of the resources along a scale) (abstract; col.4, lines 54-67, col.5, lines 1-29; 'skill' reads on the claim 'attribute').

Crockett further teaches based at least in part on the quantifying steps, determining at least one suitable agent for servicing the at least one request (col.4, lines 54-67, col.5, lines 1-29; 'agent' reads on the claim 'resource').

Regarding claim 36, Crockett teaches gradationally quantifying at least one skill of the agents (abstract; col.4, lines 54-67; 'skill' reads on the claim 'attribute' and 'agents' reads on the claim 'resources').

Crockett further teaches receiving at least one request for at least one of the agents (abstract; col.4, lines 54-67; 'agents' reads on the claim 'resources').

Crockett further teaches gradationally quantifying at least one skill desired by the at least one request (col.4, lines 54-67, col.5, lines 1-29; 'skill' reads on the claim 'attribute').

Crockett further teaches determining at least one suitable agent for servicing the at least one request based at least in part on the at least one quantified attribute of the agents and the at least one quantified attribute desired by the at least one request, wherein the means for determining computes a difference between the particular skill group (i.e., quantified at least one attribute) of the agents (i.e., resources) and the particular skill

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group (i.e., quantified at least one attribute) desired by the at least one call type (i.e., request) to identify at least one of the agents (i.e., resources) that is suitable for servicing the at least one request (fig.1, fig.2; col.4, lines 54-67, col.5, lines 10-28, 35-38, 46-51, col.8, lines 17-37, 65-67, col.9, lines 1-13; 'agent' reads on the claim 'resource').

Regarding claim 37, Crockett teaches quantifying at least one skill of the agents includes a computer processor executing computer software code (abstract; col.4, lines 54-67, col.10, lines 49-65; 'skill' reads on the claim 'attribute' and 'agents' reads on the claim 'resources').

Regarding claim 38, Crockett teaches quantifying at least one skill desired by the at least one request includes a computer processor executing computer software code (abstract; col.4, lines 54-67, col.10, lines 49-65; 'skill' reads on the claim 'attribute').

Regarding claim 39, Crockett teaches that the determining means includes a computer processor executing computer software code (col.10, lines 49-65).

Regarding claim 40, Crockett teaches that the receiving means includes a connection to a network (col.5, lines 18-22).

Regarding claims 42 and 62, Crockett teaches that the receiving means includes a switching system (col.4, lines 54-67, col.5, lines 1-29).

Regarding claims 43 and 63, Crockett teaches that the switching system includes an ACD/PBX (col.3, lines 16-21, col.4, lines 54-67, col.1-29).

Regarding claim 60, Crockett teaches connection to a network capable of receiving at least one request for at least one of the agents (col.5, lines 5-22; 'agents' reads on the claim 'resources').

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Crockett further teaches memory for storing computer executable program code, wherein the computer executable program code includes code executable to quantify at least one attribute of the agents, code executable to quantify at least one skill desired by the at least one request, and code executable to determine at least one suitable resource for servicing the at least one request based at least in part on the at least one quantified attribute of the agents and the at least one quantified skill desired by the at least one request (abstract; col.4, lines 54-67, col.5, lines 1-29, col.10, lines 49-65; 'agents' reads on the claim 'resources' and 'skill' reads on the claim 'attribute').

Crockett further teaches the code executable to quantify at least one attribute of the resources further including code executable to organize two groups (i.e., quantify "N" number) of skills of agents (i.e., attributes of the resources) and code executable to plot the organized two groups (i.e., quantified "N" number) of skills (i.e., attributes) within an two-dimensional arrays (i.e., N-dimensional space) (fig.1, fig.2; col.5, lines 10-28, 35-38, 46-51, col.8, lines 17-37, 65-67, col.9, lines 1-13, col.10, lines 37-44).

Crockett further teaches that the code executable to quantify at least one attribute desired by the at least one call type (i.e., request) further includes code executable to plot the particular skill (i.e., quantified at least one attribute) desired by the at least one request within the two-dimensional arrays (i.e., N-dimensional space) (fig.1, fig.2; col.5, lines 10-28, 35-38, 46-51, col.8, lines 17-37, 65-67, col.9, lines 1-13, col.10, lines 37-44).

Crockett further teaches the code executable to determine at least one suitable resource includes code executable to calculate the distance between the organized two groups of skills (i.e., quantified "N" number of attributes) of the agents (i.e., resources) and the particular skill group (i.e., quantified at least one attribute) desired by the at least

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one call type (i.e., request) to determine at least one suitable agents (i.e., resource) for servicing the at least one request (fig.1, fig.2; col.5, lines 10-28, 35-38, 46-51, col.8, lines 17-37, 65-67, col.9, lines 1-13).

Crockett further teaches processor for executing the computer executable program code (col.10, lines 49-65).

Regarding claim 80, Crockett teaches quantifying at least one attribute desired by the at least one request comprises utilizing skill profile (i.e., at least one selected from the group consisting of: demographics information, a profile for a requestor, and interactive voice response (IVR) interaction with the requestor) (col.2, lines 65-67, col.5, lines 5-29).

Regarding claims 81 and 84, Crockett teaches receiving a target value of the at least one attribute desired by the at least one request and a simulator (i.e., close\_match modifier) that indicates the closeness of the quantified at least one attribute of the resources to the target value that is suitable for servicing the at least one request (col.5, lines 5-29, col.6, line 37-col.7, line 2).

Regarding claims 82 and 83, Crockett teaches that quantifying at least one attribute desired by the at least one request comprises using information in a profile for a requestor of the at least one of the resources for performing the quantifying for a request from the requestor (col.2, lines 65-67, col.5, lines 5-29, col.6, line 37-col.7, line 2).

Regarding claim 85, Crockett teaches receiving a simulator (i.e., close\_match modifier) that indicates how close the quantified at least one functional attribute of the resources has to be to the quantified at least one functional attribute desired by the at least one request in order to be suitable for servicing the at least one request (col.5, lines 5-29, col.6, line 37-col.7, line 2).

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# Claim Rejections - 35 USC § 103

- 5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 6. Claims 16, 18, 33, 35, 57, 59, 77 and 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crockett et al. (U.S. Patent No. 6,044,355) and in view of Raman et al. (U.S. Patent No. 5,572,625).

Regarding claims 16, 18, 33, 35, 57, 59, 77 and 79, Crockett fails to teach "said scale is of 0 to 100". Raman teaches that the scale is of 0 to 100 (fig.5a, fig.5b; col.8, lines 57-67, col.9, lines 1-41). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Crockett to allow scale being of 0 to 100 as taught by Raman. The motivation for the modification is to have doing so in order to provide the quantification of the capability of the attributes.

7. Claims 41 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crockett et al. (U.S. Patent No. 6,044,355) and in view of McPartlan et al. (U.S. Patent No. 6,584,191).

Regarding claims 41 and 61, Crockett fails to teach "network is selected from the group consisting of public switched telephony network (PSTN), local area network (LAN), wide area network (WAN), the Internet, an Intranet, or any combination thereof". McPartlan teaches that the network is selected from the group consisting of public switched telephony network (PSTN), local area network (LAN), wide area network

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(WAN), the Internet, an Intranet, or any combination thereof (abstract; fig.2, fig.3; col.6, lines 63-67, col.7, lines 1-20, col.8, lines 23-34). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Crockett to allow the network being selected from the group consisting of public switched telephony network (PSTN), local area network (LAN), wide area network (WAN), the Internet, an Intranet, or any combination thereof as taught by McPartlan. The motivation for the modification is to have doing so in order to provide the network suitable for the system.

#### Conclusion

8. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Md S Elahee whose telephone number is (703) 305-4822. The examiner can normally be reached on Mon to Fri from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on (703) 305-4895. The fax phone numbers for the

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organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and for After Final communications.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [shafiulalam.elahee@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4750.

#### Any response to this action should be mailed to:

Box AF

Commissioner of Patents and Trademarks

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discussed at an interview; please label such communications "PROPOSED" or "DRAFT")

### or hand-carried to:

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M.E. MD SHAFIUL ALAM ELAHEE March 20, 2004

> FAN TSANG SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 2600